UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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AUG 2 0 2002

MEMORANDUM

REPLY TO THE ATTENTION OF

SUBJECT: **ACTION MEMORANDUM - Request for a Time-Critical Removal Action at the Gary Development Landfill Site, Lake County, Gary, Indiana (Site ID# B52L)**

FROM: **Anita L. Boseman, On-Scene Coordinator**
Emergency Response Branch - Response Section 3

TO: **Richard C. Karl, Chief**
Emergency Response Branch

THRU: **Linda M. Nachowicz, Chief**
Emergency Response Section 3

I. PURPOSE

The purpose of this memorandum is to request and document your approval to expend up to $ 28,000 to abate an imminent and substantial threat to public health, welfare, and the environment posed by the presence of hazardous substances and pollutants including insecticides, flammable liquids, acidic liquids, and oily wastes containing low levels of BTEX and PAHs in deteriorating drums and above ground storage tanks (ASTs) at the Gary Development Landfill Site (GDLF or the Site), Lake County, Gary, Indiana.

The GDLF Site is located at 479 North Cline Avenue in Lake County, Gary, Indiana which is a former Gary Development Company facility. The Gary Development Company operated a landfill until approximately1986 that accepted solid and hazardous wastes. The landfill includes four abandoned buildings, the landfill and a lagoon. The Site is north of and immediately adjacent to the Grand Calumet River. The area surrounding the Site is primarily industrial and commercial. Access to the Site is limited by means of a chain link fence, however, signs of trespassing are evident.

This proposed time-critical removal action seeks to mitigate the threats to public health, welfare, and the environment posed by the presence of hazardous substances as identified in 40 CFR Section 300.415 of the NCP.

The proposed removal action includes removal and disposal of 10 waste streams. It is estimated that this removal action will require 5 on-site working days to complete.

The GDLF Site is not on the National Priorities List (NPL).

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # IND 077 005 916

A. Site Description and Physical Location

The GDLF Site is located in an industrial and commercial area at 479 North Cline Avenue in Gary, Lake County, Indiana. The Site was used by the Gary Development Company as a solid and hazardous waste landfill from 1974 until approximately 1986. The facility consists of four abandoned buildings totaling approximately 8,000 square feet, the landfill and a lagoon situated on the northeast side of the landfill. The Site was abandoned in 1998 when the Gary Development Company dissolved. The Site is north of and immediately adjacent to the Grand Calumet River. Approximately 0.5 miles to the west of the Site is the East Chicago Central Service Facility. Immediately west of the Site is AGM Recycling, a scrap steel and aluminum recycling facility. Currently, there are hazardous substances and pollutants located in the abandoned buildings and on the property. The lagoon is known to contain at least 10-12 drums and an excavator. The lagoon is a former borrow pit area that has since filled with water. The depth of the water is estimated at approximately 20 feet. Access to the lagoon is through the AGM Recycling train yard. Public access to the Site is limited by means of a chain link fence with a lock; however, signs of trespassing are evident. The Site coordinates are latitude 41° 36' 46" North and longitude 87° 25' 44" West.

In Indiana, the low-income percentage is 29% or greater and the minority percentage is 10% or greater. To meet the Environmental Justice (EJ) concern criteria, the area within 1 mile of a site must have a population that is twice the state low-income percentage or twice the state minority percentage. In other words, that area must be either 58% low-income or 20% minority. At this Site, the low-income percentage is 20% and the minority percentage is 88%, as determined by Landview III EJ analysis using the 1990 Census Database. Therefore, this Site does meet the Region's EJ criteria based on demographics as identified in "Region 5 Interim Guidelines for Identifying and Addressing a Potential EJ Case, June 1998."

B. Site Background and History

The Gary Development Company operated a landfill at the Site from 1974 until approximately 1986. Although the landfill reported that it operated as a sanitary landfill accepting only commercial and municipal wastes, in 1996, U.S. EPA determined that the Gary Development Company had operated an illegal hazardous waste disposal facility at the landfill. In April 1996, U.S. EPA ordered the company to comply with the Resource Conservation and Recovery Act (RCRA) closure procedures, post-closure maintenance, and groundwater monitoring requirements at the landfill. In 1997, the Gary Development Company signed a consent agreement in which it agreed to use substantially all of its remaining assets to pay a penalty and to establish a trust fund of $40,000 to be used at the Site towards closure costs. The Gary Development Company dissolved in 1998 although it continues to hold title to the area of the Site that would be addressed in the proposed removal action.

The Indiana Department of Environmental Management (IDEM) continued to conduct periodic inspections at the Site and identified several abandoned drums at the Site on January 8, 2002. Two of the drums on the south apron of one of the buildings, approximately 75 feet from the Calumet River, appeared to be leaking an unknown oil causing a sheen in the rain water on the pavement. At that time, IDEM notified U.S. EPA of the situation and asked for assistance in stabilizing the drums and performing a site assessment.

On January 8, 2002, U.S. EPA, On-Scene Coordinator, Anita Boseman, along with Superfund Technical Assistance Response Team (START) contractor, Tetra Tech, investigated the release. U.S. EPA under the Oil Pollution Act (OPA) authority proceeded to address the oil spill by placing sorbent boom around the two leaking drums identified by IDEM, as well as downgradient of the drums. Two samples were collected for laboratory analyses of disposal characteristics, including flashpoint, semivolatile organic compounds (SVOC), volatile organic compounds (VOC), polychlorinated biphenyls (PCB), target analyte list (TAL), metals, and pH.

On January 9, 2002, the Emergency and Rapid Response Services (ERRS) contractor Environmental Quality Management, Inc. (EQM) continued to address the source of the release by overpacking the two drums sampled the day before. Oil dry was used on the concrete pad where the drums had been stored to collect waste oil released from the leaking drums. U.S. EPA and START continued with the site assessment.

On February 12, 2002, all of the drums that had been previously sampled were placed in overpack containers in preparation for offsite disposal as nonhazardous waste under the OPA program. AST T-4 was emptied and approximately 45 gallons of diesel were recovered and transferred to a drum for disposal. Empty drums found at the site were crushed and placed in a 30 cubic yard roll-off box delivered the same day. ASTs T-3, which was empty and had been apparently used as a water storage tank, and T-4 were cut apart and also placed on the roll-off box. Drums that had been unable to be sampled during the January 9th site assessment due to frozen contents were placed into 85-gallon overpack drums and staged inside one of the buildings for eventual sampling.

On February 13, 2002, all small containers found on site were staged together and were hazard categorized to identify waste streams. The containers were then placed into lab pack containers for eventual disposal.

On February 19, 2002, the drums that were frozen during the previous sampling event were characterized and sampled. One composite sample was collected from eight drums and one grab sample was collected from one drum.

A total of twenty-nine drums, D-1 through D-29, five above ground storage tanks, (AST), T-1 through T-5, and assorted small containers were cataloged and sampled. Many of the drums were in poor condition. Drums D-9B and D-15 were also, found to be leaking. The generalized drums and ASTs sampling results are as follows:

- The presence of waste oils in drums D-1 and D-2.

- The presence of approximately 45 gallons of diesel fuel in AST T-4 and residual sludge in AST T-5

- The presence of hazardous flammable substances was detected in composite drum sample D3-25, and D-28. The flash points were 80°F and 120°F, which falls below the temperature level that defines a hazardous waste of less than 140°F (40 CFR § 261.219(a)(1) and (b)

- The presence of gear oil in drum D-12 and transmission fluid in drum D-13

- The presence of two 5-gallon buckets of oil and three 5-gallon buckets of grease

- The presence of automotive windshield cleaner with antifreeze in drums D-23 and D-24

- The presence of insecticide powder, twenty-eight 1-gallon latex paint cans, two 30-pound cylinders of Freon, eight electrical capacitors, eight cans of spray paint and spray lubricants, seven 1-gallon oil paint cans and an acetylene cylinder

- The presence of trace levels of metals, VOCS and SVOCs were detected in drum samples D3-25 and D-28, however no sample analytical results met or exceeded criteria set forth in 40 CFR Part 261 for hazardous waste

On April 4, 2002, U.S. EPA, START and IDEM conducted an investigation around the lagoon area north of the landfill (See Figure 3). During the site visit, IDEM pointed out two visible drums and the approximate location of 8-10 other drums. One visible drum was located near the southeastern bank of the lagoon and appeared to be rusted through. The second visible drum was located at the south-central bank of the lagoon. Another 8 to 10 drums are believed to be completely submerged in the southwestern portion of the lagoon. IDEM observed the drums during a flyover. The contents of all the drums are unknown.

On May 9, 2002, surface water samples were collected from the lagoon located on the northeast side of the site. The lagoon was surveyed using a canoe. The surface water samples were collected using a Kemmerer sampler from a discrete depth, and basic water quality parameters, including pH, temperature, and conductivity, were measured using a water quality meter. During the event, START observed the drum noted during a previous reconnaissance, and found it to be an empty, crushed polyethylene 55-gallon drum. Also, observed was the submerged excavator, however submerged drums could not seen due to turbid water conditions. A total of five surface water samples, including one duplicate sample, were collected from the lagoon. The results identified the following:

- The presence of trace levels of metals were detected in the surface water samples, although none of the analytical results met or exceeded regulatory criteria used by the U.S. EPA for surface water direct contact exposure or surface water/groundwater interface criteria

C. Current Site Situation

The following removal activities were addressed using OPA authority: leaking oil waste in drums D1, D2,D-9B, D-12, D-13 and D-15 have been overpacked and disposed, RCRA empty drums have been crushed and disposed in a roll-off box, the diesel fuel in AST T-4 was recovered and transferred to a drum for disposal and AST T-4 and T-3, which were empty were cut apart and placed in the roll-off box.

The remaining drums and lab pack containers listed below await disposal using CERCLA authority:

Lab Pack ID	Quantity	Description
LP1	(28) 1-gallon plus (1) quart	Latex paint cans
LP2	(3) 5-gallon buckets	Grease
LP3	(1) 1-gallon (7) 1-gallon (3) 1-quart	Roofing cement Oil base paint cans Oil base paint cans
LP4	(2) 1-quart bottles	Household drain cleaner; active ingredient = sulfuric acid
LP5	(1) 1-gallon container	Insecticide powder; active ingredient = 2'2-dimethyl-1'3 benzodioxyl; 4 methylcarbonate
LP6	(1) 1-gallon can	Insecticide liquid "Blitz Fog"; active ingredient = detransallethron
LP7	(2) 30-lb cylinders	Freon; one partially full, one empty
LP8	(8) electrical capacitors	Various manufacturers
LP9	(5) 11-oz cans (1) 11-oz can (1) 15-oz can (2) 14-oz cans	Spray paint Starting fluid Silicone lubricant Gearshield lubricant
LP10	(53) 1-qt cans	Windshield washer with antifreeze, contains 30% methanol

III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The conditions at the Site present a release and a potential threat of release of a CERCLA hazardous substance, presenting an imminent and substantial endangerment to the public

health, welfare, and the environment, and meet the criteria for an emergency removal action provided for in the National Contingency Plan (NCP), 40 CFR § 300.415(b)(2) (i), (ii), (v), (vi) and (vii). These criteria include:

i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

Hazardous substances and pollutants found at the GDLF Site include insecticides, flammable liquids, and acidic liquids, as well as oily wastes containing low levels of BTEX compounds and polynuclear aromatic hydrocarbons (PAH), which include anthracene, fluorene, napthalene, and pyrene. Many of these substances are present in significantly deteriorating drums. Electrical capacitors that may contain PCBs were also found at the Site. Hazardous substances and pollutants in soil at the GDLF Site would pose threats to Site visitors and wildlife. During the Site assessment, START observed evidence of trespassing and also encountered several dogs inside one of the buildings. In addition, hazardous substances and pollutants discharging into the Grand Calumet River from the GDLF Site would pose threats to wildlife in or near the waterway.

Bendiocarb, the active ingredient in the insecticide powder found at the GDLF Site, is an extremely toxic substance. It has received the U.S. EPA's Acute Toxicity Category I rating for oral exposure, which is the highest rating. Animal studies have shown that bendiocarb inhibits cholinesterease activity in the blood, plasma, and brain. The chemical has been shown to degrade rapidly and is soluble in water

According to the Agency for Toxic Substances and Disease Registry (ATSDR) and Department of Health and Human Services, certain PAHs are suspected carcinogens. According to animal studies, PAHs can have harmful effects on skin, on body fluids, and on the ability to fight disease. Acute exposure to napthalene has been shown to destroy red blood cells, as well as cause fatigue, nausea, diarrhea, restlessness, blood in urine, and vomiting.

Exposure to BTEX compounds has also been shown to cause adverse health effects. Inhalation of elevated levels of BTEX compounds has been shown to damage the central nervous system and cause nausea, dizziness, confusion, and throat and eye irritation. Benzene is a widely used chemical formed by both natural processes and human activities. Breathing benzene vapor can cause drowsiness, dizziness, and unconsciousness. Long-term benzene exposure has adverse effects on the bone marrow and can cause anemia and leukemia. Ethylbenzene is a chemical that can be found in gasoline and paints. Breathing ethylbenzene can dizziness and throat and eye irritation. Toluene is a chemical that is often used as a solvent in paints and adhesives. Exposure to toluene has been shown to affect the central nervous system. Xylene is a chemical that can be found in gasoline, paint, and paint thinners. Inhalation of elevated levels of xylenes can cause loss of balance, dizziness, and confusion.

The electrical capacitors found at the GDLF Site are suspected to contain PCBs. PCBs are a mixture of chemicals that have historically been used as coolants and lubricants, specifically in

electrical capacitors. The commercial use of PCBs was stopped in 1970 due to concern of detrimental health effects and their accumulation in the environment. According to ATSDR, health effects associated with chronic exposure to PCBs include liver damage, immune system damage of breast-feeding children, and memory and motor-skill loss of breast-feeding children. PCBs have been shown to accumulate in fish tissue and remain in the food chain.

(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems.

As discussed above, the GDLF Site is bordered on the south by the Grand Calumet River which supports sensitive aquatic and riparian ecosystems. Hazardous substances and contaminants discharging from the deteriorating drums and containers into the waterway from the Site would pose threats to these and surrounding ecosystems and impact the overall downstream water quality.

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

Many of the contaminants present at the GDLF Site are located in drums that are stored outside. Precipitation and weathering have deteriorated many of the drums, which could result in off-site migration of contaminants into the Grand Calumet River.

(vi) Threat of fire or explosion.

There is a potential for a fire hazard at the Site due to the presence of ignitable contaminants in two drums. The ignitability of these drums are 80°F and 120°F. For ignitability, a hazardous waste is defined as any waste material with an ignitability of less than 140°F. Fire on the property may cause releases of contaminants into the Calumet River or damage to nearby persons and/or property.

(vii) The availability of other appropriate federal or state response mechanisms to respond to the release.

The IDEM requested assistance from the U.S. EPA to assess the hazardous conditions at the Site in Gary, Indiana. IDEM does not have the financial resources to conduct a time-critical clean up at the Site.

IV. ENDANGERMENT DETERMINATION

Given the Site conditions, the nature of the suspected hazardous substances on-site, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

The purpose of this time-critical removal action is to mitigate the immediate threats posed to the public health, welfare, or the environment by the presence of the abandoned drums containing a low flashpoint, thereby resulting in fire, explosion and/or benzene exposure (toxicity). Removal activities at the Site will include, but are not limited to, the removal of all drums located in and near the four buildings at the Site, sampling and possible removal of contaminated soil underneath the drums, the disposal of all personal protective equipment and the off-site disposal of all characterized wastes identified and collected during these removal activities.

Therefore, the OSC proposes to undertake the following actions to mitigate threats posed by the presence of deteriorating drums and containers of hazardous substances or pollutants or contaminants at and near the four buildings at the Gary Development Landfill Site:

1) Develop and implement a work-plan;

2) Develop and implement a site-specific Health and Safety Plan, including an air monitoring plan and a Site Emergency Contingency Plan;

3) Secure and contain all hazardous substances on-site;

4) Decontaminate field and personal equipment; and

5) Stabilize and dispose of off site all hazardous substances, pollutants, contaminants from drums and containers removed off site pursuant to this removal action for treatment, storage, or disposal at an U.S. EPA-approved disposal facility in compliance with the U.S. EPA Off-Site Rule, 40 CFR § 300.440, 58 Federal Register 49215 (Sept. 22, 1993).

The removal action will be conducted in a manner not inconsistent with the National Contingency Plan (NCP). The OSC has initiated planning for provision of post-removal site control consistent with the provisions of Section 300.415(l) of the NCP. Elimination of all surface threats is, however, expected to minimize the need for post-removal site control. While the removal will address the direct threat, there may be historical subsurface contamination that may need to be addressed through the remedial or other environmental program.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants, or contaminants at the Site which may pose an imminent and substantial endangerment to public health and safety and the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

Removal activities require approximately 8 on-site working days to complete. Detailed cleanup contractor costs are presented in Attachment 1. The estimated costs to complete the above

activities are summarized below.

REMOVAL PROJECT CEILING ESTIMATE

EXTRAMURAL COSTS:

Regional Removal Allowance Costs:	$ 20,000
Total Cleanup Contractor Costs (This cost category includes estimates for: ERRS, subcontractors, Notices to Proceed, and Interagency Agreements with Other Federal Agencies. Includes a 15% contingency).	
Other Extramural Costs Not Funded from the Regional Allowance:	
Total START, including multiplier costs	$ 3,000
Subtotal	$ 3,000
Subtotal, Extramural Costs	$ 23,000
Extramural Costs Contingency (20% of Subtotal, Extramural Costs)	+ $ 28,000
TOTAL, REMOVAL ACTION PROJECT CEILING	$ 28,000

The response actions described in this memorandum directly addressed the actual or threatened releases of hazardous substances, pollutants, or contaminants at this Site, which may have posed an imminent and substantial endangerment to public health, welfare, or the environment. These response actions did not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

Applicable or Relevant and Appropriate Requirements

All applicable, relevant, and appropriate requirements (ARARs) will be complied with to the extent practicable. Federal ARARs for this Site include RCRA regulations. As the materials being dealt with are likely to be RCRA characteristic wastes, they will be handled accordingly. The IDEM requested U.S. EPA assistance in order to address this health and environmental threat.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Given the Site conditions, the nature of the hazardous substances documented on-site, and the potential exposure pathways to nearby populations described in Sections II and III above, actual or threatened release of hazardous substances from the Site, if not addressed by implementing the response actions selected in this Action Memorandum, would have presented an imminent and substantial endangerment to public health, welfare, or the environment.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be $ 43,000. [1]

(28,000 + 5,000) + (39.21% x 28,000) = $ 43,000

[1] Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgement interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States's right to cost recovery.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Gary Development Landfill Site developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the Site (See Attachment 2). Conditions at the Site met the NCP § 300.415(b)(2) criteria for a time-critical removal action, therefore, I recommend your approval of this removal action. The total project ceiling will be $ 28,000 of which, $ 20,000 may be used for cleanup contractor costs. You may indicate your decision by signing below:

APPROVE: Will P. Messenger DATE: 8-20-02
Chief, Emergency Response Branch

DISAPPROVE: ______________________________ DATE: ________________
Chief, Emergency Response Branch

Enforcement Addendum
Attachments
1. Detailed Cleanup Contractor Cost Estimate
2. Administrative Record Index
3. Region V EJ Analysis

cc: K. Mould, U.S. EPA, 5202-G
M. Chezik, U.S. Department of the Interior, **w/o Enf. Addendum**
J. Nordine, IDEM, **w/o Enf. Addendum**
E. Admire, IDEM, **w/o Enf. Addendum**
G. Doxatater, IDEM, **w/o Enf. Addendum**

ATTACHMENT 1

DETAILED CLEANUP CONTRACTOR ESTIMATE

GARY DEVELOPMENT LANDFILL SITE
GARY, LAKE COUNTY, INDIANA

AUGUST 2002

The estimated cleanup contractor costs necessary to complete the removal action at the Gary Development Construction Drums Site are as follows:

Personnel and Equipment	$ 12,000
Materials & Miscellaneous	$ 3,000
Transportation & Disposal	$ 5,000
TOTAL	**$ 20,000**

ATTACHMENT 2

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

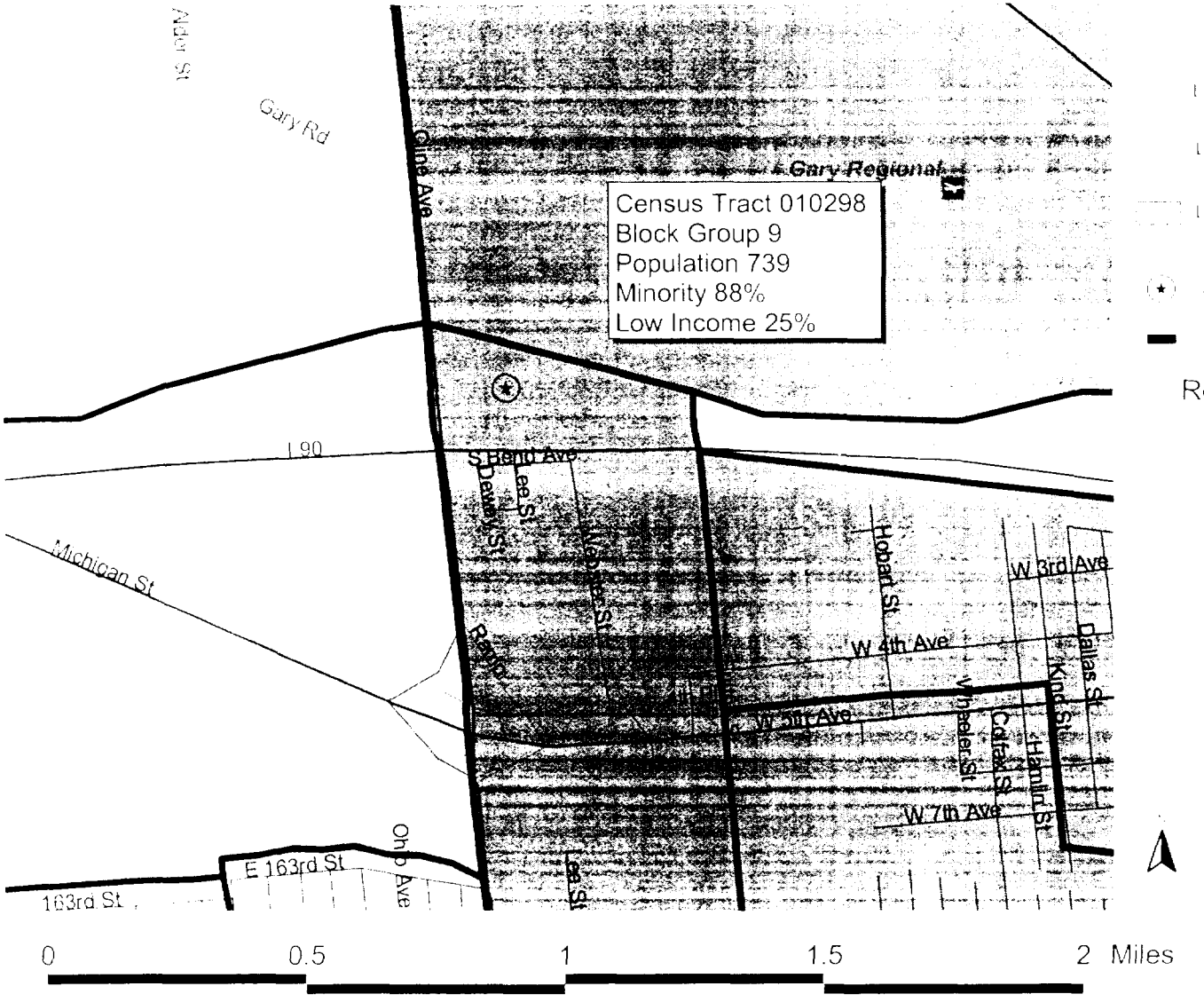
ADMINISTRATIVE RECORD
FOR
GARY DEVELOPMENT LANDFILL SITE
GARY, LAKE COUNTY, INDIANA

ORIGINAL
AUGUST 13, 2002

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	01/18/02	Boseman, A., U.S. EPA	Distribution List	POLREP #1 (Initial) for the Gary Development Landfill Site	3
2	02/18/02	Boseman, A., U.S. EPA	Distribution List	POLREP #2 for the Gary Development Landfill Site	3
3	06/18/02	Tetra Tech EM, Inc.	U.S. EPA	Site Assessment Report for the Gary Development Landfill Site	124
4	00/00/00	Boseman, A., U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Request for a Time-Critical Removal Action at the Gary Development Landfill Site **(PENDING)**	

Region 5 Superfund EJ Analysis

Gary Development Landfill Site Gary,IN



EJ Identification

Low Income and Minority Less Than State Average

Low Income or Minority at or Greater than State Average

Low Income or Minority 2 Times or Greater than State Average

Site Location

Block Group Boundary

Region 5 EJ Case Criteria for Indiana
Minority: 20% or greater
Low Income: 58% or greater

ENFORCEMENT CONFIDENTIAL ADDENDUM

GARY DEVELOPMENT COMPANY, INC. SITE
(a.k.a. GARY DEVELOPMENT LANDFILL SITE
GARY, LAKE COUNTY, INDIANA
AUGUST 2002

(REDACTED 3 PAGES)

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION